



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

D350-636-011
Job Sheet 177513



Part No: D350-636-011

Job Qty: 1 ea

Part Name: Skidtube LH, Std Wearplates, DART (Apical) Cylindrical/Aerazur Float Comp.



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 5/14/18

Job Tracking No:

Due Date: 6/20/18

Created By: Michelle Gagnon-Donovan

Type: SOLD

Description:

Note: D2750-041 REV G SHEETS 1,2,4,8 IPP Rev:I 02.09.25 IPP Rev:J 06-03-23 As per Rev D IPP Rev:K 06-07.13
As per dsi9343 IPP Rev:L 07-07-28 Added SS Wearplates(Rev E) JLM Ver:EC IPP Rev:M 08-04-22 DD
verified:EC IPP Rev:N 08-09-23 revF DD verified:ec IPP Rev:O 09-02-06 per PAR09-010 DD ver:EC IPP
Rev:P 10.06.22 revise seq110 DD ver:EC IPP Rev:Q 10.10.01 as per IIN revH DDver:EC IPP REV:R
13.08.27 PER EGN13-594 DD VERE JLM

Ship Via:



Container No: S079796



Part: D350-636-011

Job No: 177513

Serial No/Batch: S079796

Revision:

Inspector:

Exp Date:

Instructions:

Date: 06/11/18

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CANADA
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Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	1 Ea		6/20/18	0.00	0.00	Start Up Skidtubes-1		MLG
110	Skidtubes	1 pcs		6/20/18	0.00	4.55	Skidtubes-4		MLG, BE, DAS
120	QC	1 pcs		6/20/18	0.00	0.00	QC10		38, DAS
130	QC	1 pcs		6/20/18	0.00	0.00	QC5		9-89, 38
140	HandFinish	1 pcs		6/20/18	0.00	0.93	HandFinish1		SA 18-06-18, 9-89
150	QC	1 pcs		6/20/18	0.00	0.00	QC7-2		BE, DAS
160	Skidtubes	1 pcs		6/20/18	0.00	4.55	Skidtubes-4		38, DAS
170	QC	1 pcs		6/20/18	0.00	0.00	QC10		9-89, 38
180	QC	1 pcs		6/20/18	0.00	0.00	QC5		SA 18-07-10, 9-89
190	HandFinish	1 pcs		6/20/18	0.00	0.93	HandFinish2		A2, JUL 11 2018
200	SprayPaint	1 pcs		6/20/18	0.00	0.91	Spray Paint		NR
205	Outsource	1 pcs		6/20/18			ATE003-VC		JUL 18-7-13
210	QC	1 pcs		6/20/18	0.00	0.00	QC14		BE, 7-13
230	HandFinish	1 pcs		6/20/18	0.00	0.93	HandFinish4		38
240	QC	1 pcs		6/20/18	0.00	0.00	QC5		JUL 19 2018
250	Packaging	1 pcs		6/20/18	0.00	0.00	Packaging1-3		JUL 26 2018
260	QC	1 pcs		6/20/18	0.00	0.00	QC4		JUL 26 2018
265	DC	1 pcs		6/20/18	0.00	0.00	DC		JUL 26 2018
270	Packaging	1 pcs		6/20/18	0.00	0.00	Packaging3-1		JUL 26 2018
280	QC21-FG	1 Ea		6/20/18	0.00	0.00	QC21		JUL 26 2018

Part Op 110 - 1- Pick D2600-3 Bent 2- Deburr FWD and AFT ends, remove bending marks. Scribe batch# inside AFT end per dwg
 Descriptions: D2750-1 3- Drill pilot holes for blade fitting bolt holes using DT8983. Start with 3/16", then open to 0.500" using center drill then ream holes using 0.500" reamer. PIN first side. Repeat process on second side. ***ENSURE PROPER POSITIONING FWD BEND MUST BE FACING UP WHEN DRILLING FIRST SIDE*** Drill pilot holes as per Dwg D2750 sheet 4 (D2750-1 details). Drill using drill Jig DT8150 & DT8863A for 2nd side only DT8863B for first side (detail B) 4- Locate DT8330 off of blade fitting bolt holes and drill pilot holes for blade fitting. Open to 0.500" using hole saw. VERIFY AND RECORD FWD BEND ANGLE. 5-Drill pilot holes for wearplates as per Dwg D2750 using DT8108 open to 0.297". 6- Open up holes of Detail A to 0.297" (total of 2 holes per side) 7-Weld D2744 Cap as per Dwg D2750 and QSI 004. Fill grooves in bend left from bending as per QSI 004 A/R Aluminum Rod batch: 138834 8-Grind welds flush as per Dwg D2750
 160 - 1-Open up holes using hole saw of Detail C and ground handling to 0.625" (total of 8 holes per side) as per dwg D2750. 2-Open up holes using hole saw of Detail B to 0.750" (total of 4 holes per side) as per dwg D2750. 3- Open float hole using un-bit to 0.500" (4 per side) 4-Chamfer holes of Detail B, C, ground handling and float holes per dwg D2750 (welding instructions on sheet 8) 5-Deburr and blow out all chips from inside of tube 6- Prepare tube for welding, remove alodine as required. 7-Bond web D2739 in place as per QSI 015, let cure for 12hrs. A/R Sikaflex-291 batch: exp. date: ***ATTN: USE I-BEAM LOCATION AID (BLADE FITTING)*** 8- Weld spacers D3490-1, D3490-3 and D2743 as per dwg D2750 & QSI004 (welding instructions on sheet 8) A/R Aluminum Rod batch: 138834 9- At section AJ-AJ drill out x-bolt spacer to 0.404" 10-Grind welds flush as per Dwg D2750 11-Spot face ground handling holes section (total of 4 places per side) as per dwg D2750 12-Deburr holes, ensure tube is free of all scratches before sending to paint.
 180 - ***VERIFY C'BOARD IS GOOD***
 190 - Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch.
 200 - 1- PRIME AS PER DWG AND QSI 005 4.2 PRIMER PRC DESOTO 515X349 BATCH: 138862 2- PAINT WHITE AS PER DWG AND QSI 005 4.2 PAINT BATCH: 138825
 210 - Inspect for foreign object per QSI 024
 230 - 1- Install inserts as per Dwg D2750 2-Inspect for Foreign Objects 3- Install blade fitting D3488-041, wearshoes and ground handling hardware as per dwg D2750 SIKA FLEX 241 BATCH: M138283 EXP DATE: 18/12 4- Assemble o-ring to plug as per dwg D3492 and apply o-ring lube A/R 55-o-ring lube batch: M138243 5- Coat all exposed fasteners with "LPS Procyon" batch: M133696
 260 - *****ensure antiseize is on AN8C21A bolts*****
 265 - record fwd angle: 89.9 Photocopy blue file and type labels per PPP D350-636-011 CHG 007
 270 - Package as per PPP D350-636-011 Location : FG072

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
D2600-3-BENT-LH	Extrusion Bent LH	1 Ea (1 ea)	90-Start up Operation	004401 5043955
D2744	Cap	1 Ea (1 ea)	90-Start up Operation	5003692
D2739	350 I-Beam	1 Ea (1 ea)	160-Skidtubes	5081150 5082661
D2743	Crossbolt Spacer	8 Ea (8 ea)	160-Skidtubes	5082661
D3490-1	Cross Bolt Spacer	4 Ea (4 ea)	160-Skidtubes	5065863
D3490-3	Cross Bolt Spacer	4 Ea (4 ea)	160-Skidtubes	5066254
AN3C5A	Bolt	34 Ea (34 ea)	230-HandFinish	5057153
AN3C6A	Bolt	4 Ea (4 ea)	230-HandFinish	5076000
AN6C44A	Bolt	4 Ea (4 ea)	230-HandFinish	5006333-1
AN8C35A	Bolt	1 Ea (1 ea)	230-HandFinish	FM138203
D2745	Bushing	8 Ea (8 ea)	230-HandFinish	5082489
D3488-041	Blade Fitting LH	1 Ea (1 ea)	230-HandFinish	5070841
D3492-1	Plug	8 Ea (8 ea)	230-HandFinish	5077552
D3492-3	Plug	8 Ea (8 ea)	230-HandFinish	5072787
D3535-25	Wearplate Center	1 Ea (1 ea)	230-HandFinish	5080660
D3536-25	Gasket Center	1 Ea (1 ea)	230-HandFinish	5081731
D3537-1	Wearpad	3 Ea (3 ea)	230-HandFinish	5070788
D3631-1	Washer	8 Ea (8 ea)	230-HandFinish	5058407
D3791-1	Wearpad	1 Ea (1 ea)	230-HandFinish	5071379
D3793-1	Wearplate Fwd	1 Ea (1 ea)	230-HandFinish	5070834
D3793-3	Wearplate Aft	1 Ea (1 ea)	230-HandFinish	5072081
D3794-1	Gasket Fwd	1 Ea (1 ea)	230-HandFinish	5071975
D3794-3	Gasket Aft	1 Ea (1 ea)	230-HandFinish	5046513
MS21043-6	Nut	4 Ea (4 ea)	230-HandFinish	5008364
MS21083C8	Nut	1 Ea (1 ea)	230-HandFinish	5050046-1
NAS1149C0332R	Washer	38 Ea (38 ea)	230-HandFinish	5056493
NAS1149C0832R	Washer	1 Ea (1 ea)	230-HandFinish	MI138404-121
NAS1515H3L	Washer	4 Ea (4 ea)	230-HandFinish	5086714
NAS1611-010	O-Ring	8 Ea (8 ea)	230-HandFinish	5049970
NAS1611-013	O-Ring	8 Ea (8 ea)	230-HandFinish	5077834
ALS4-1032-225	Rivnut	38 Ea (38 ea)	230-HandFinish	5058138
AN8C21A	Bolt	2 Ea (2 ea)	250-Packaging	FM137102
D2741	Replacement Blade	1 Ea (1 ea)	250-Packaging	5068565
D3493-1	Washer	2 Ea (2 ea)	250-Packaging	5067105
D3532-1	Spacer	2 Ea (2 ea)	250-Packaging	5090421
MS21083C8	Nut	2 Ea (2 ea)	250-Packaging	5050046
NAS1149D0863J	Washer	2 Ea (2 ea)	250-Packaging	7625635

9-89
DAG
JUL 26 2018

004500

Job Allocations				
Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	D2600-3-BENT-LH	1	3	0
	D2744	1	86	0
160-Skidtubes	D2739	1	10	0
	D2743	8	86	0
	D3490-1	4	128	0
	D3490-3	4	107	0
230-HandFinish	ALS4-1032-225	38	5,407	0
	AN3C5A	34	1,858	0
	AN3C6A	4	266	0
	AN6C44A	4	351	0
	AN8C35A	1	47	0
	D2745	8	113	0
	D3488-041	1	16	0
	D3492-1	8	88	0
	D3492-3	8	87	0
	D3535-25	1	24	0
	D3536-25	1	31	0
	D3537-1	3	169	0
	D3631-1	8	931	0
	D3791-1	1	20	0
	D3793-1	1	30	0
	D3793-3	1	16	0
	D3794-1	1	21	0
	D3794-3	1	29	0
	MS21043-6	4	200	0
	MS21083C8	1	125	0
	NAS1149C0332R	38	5,536	0
	NAS1149C0832R	1	66	0
	NAS1515H3L	4	199	0
	NAS1611-010	8	569	0
	NAS1611-013	8	365	0
250-Packaging	AN8C21A	2	96	0
	D2741	1	87	0
	D3493-1	2	58	0
	D3532-1	2	40	0
	MS21083C8	2	125	0
	NAS1149D0863J	2	119	0
Part Specifications				
Specifications could not be found.				

Plex 5/14/18 12:03 PM Dart.Gagnon.Michelle

QTY -041	QTY -042	QTY -043	QTY -044	PART NUMBER	DESCRIPTION
X				D2750-041	350 SKIDTUBE ASSEMBLY, LH
	X			D2750-042	350 SKIDTUBE ASSEMBLY, RH
		X		D2750-043	350 SKIDTUBE ASSEMBLY, LH
			X	D2750-044	350 SKIDTUBE ASSEMBLY, RH
1	1	1	1	D2739	WEB
8	8	8	8	D2743	SPACER
1	1	1	1	D2744	CAP
8	8	8	8	D2745	BUSHING
1				D2750-1	SKIDTUBE WELDMENT, LH
	1			D2750-2	SKIDTUBE WELDMENT, RH
		1		D2750-3	SKIDTUBE WELDMENT, LH
			1	D2750-4	SKIDTUBE WELDMENT, RH
1		1		D3488-041	BLADE FITTING, LH
	1		1	D3488-042	BLADE FITTING, RH
4	4	4	4	D3490-1	SPACER
4	4			D3490-3	SPACER
		4	4	D3490-5	SPACER
8	8	8	8	D3492-041	PLUG ASSEMBLY
8	8			D3492-043	PLUG ASSEMBLY
		8	8	D3492-045	PLUG ASSEMBLY
1	1	1	1	D3535-25	WEARSHOE
1	1	1	1	D3536-25	GASKET
3	3	3	3	D3537-1	WEARPAD
8	8	8	8	D3631-1	WASHER
1	1	1	1	D3781-1	WEARPLATE
1	1	1	1	D3793-1	WEARSHOE
1	1	1	1	D3793-3	WEARSHOE
1	1	1	1	D3794-1	GASKET
1	1	1	1	D3794-3	GASKET
38	38	38	38	ALS4-1032-225	INSERT (OR ALS7-1032-225, AKS4-1032-225, AELS-1032-225)
34	34	34	34	AN3C5A	BOLT
4	4	4	4	AN3C8A	BOLT
4	4	4	4	AN6C44A	BOLT
1	1	1	1	AN8C35A	BOLT
38	38	38	38	AN960C10L	WASHER
1	1	1	1	AN960C816L	WASHER
4	4	4	4	MS21043-6	NUT
1	1	1	1	MS21083C8	NUT
4	4	4	4	NAS1515H3L	WASHER

GENERAL NOTES:

- MATERIAL: MAKE D2750-1/-2/-3/-4 FROM D2600-3 EXTRUSION (INITIAL LENGTH = 120.0).
- FINISH: ACID ETCH, ALODINE ASSEMBLY PER DART QSI 005 4.1 PRIOR TO INSTALLING D2739 WEB.
STANDARD: PRIME (REF. 4.2.1.3.3) AND PAINT WHITE PER DART QSI 005 4.2
OPTIONAL: POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT AS INDICATED TO 1.0 ABOVE SKIDTUBE CENTER-LINE PER DART 005 4.4 (OPTIONAL).
- TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- UNITS: INCHES UNLESS OTHERWISE NOTED
- BREAK SHARP EDGES: N/A
- IDENTIFICATION: N/A
- WEIGHT: D2750-041/-042/-043/-044 = 26.5 LBS
- WELD PER DART QSI 004
- INSTALL ALS4-1032-225 INSERTS AFTER FINISH AS INDICATED. DRILL "F" SIZE HOLES ($\phi 0.297$) FOR WEARSHOE INSERTS
- FINAL CONFIGURATION SHOULD HAVE THE FOLLOWING MINIMUM MECHANICAL PROPERTIES:
MINIMUM YIELD TENSILE STRENGTH = 35 KSI
MINIMUM ULTIMATE TENSILE STRENGTH = 38 KSI
- COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF
FINISH WITH MEK DEGREASER.
- SPACER AND PLUG INSTALLED SAME AS SECTION AJ-AJ EXCEPT HORIZONTAL
- SPACER AND PLUG INSTALLED SAME AS SECTION AP-AP EXCEPT HORIZONTAL

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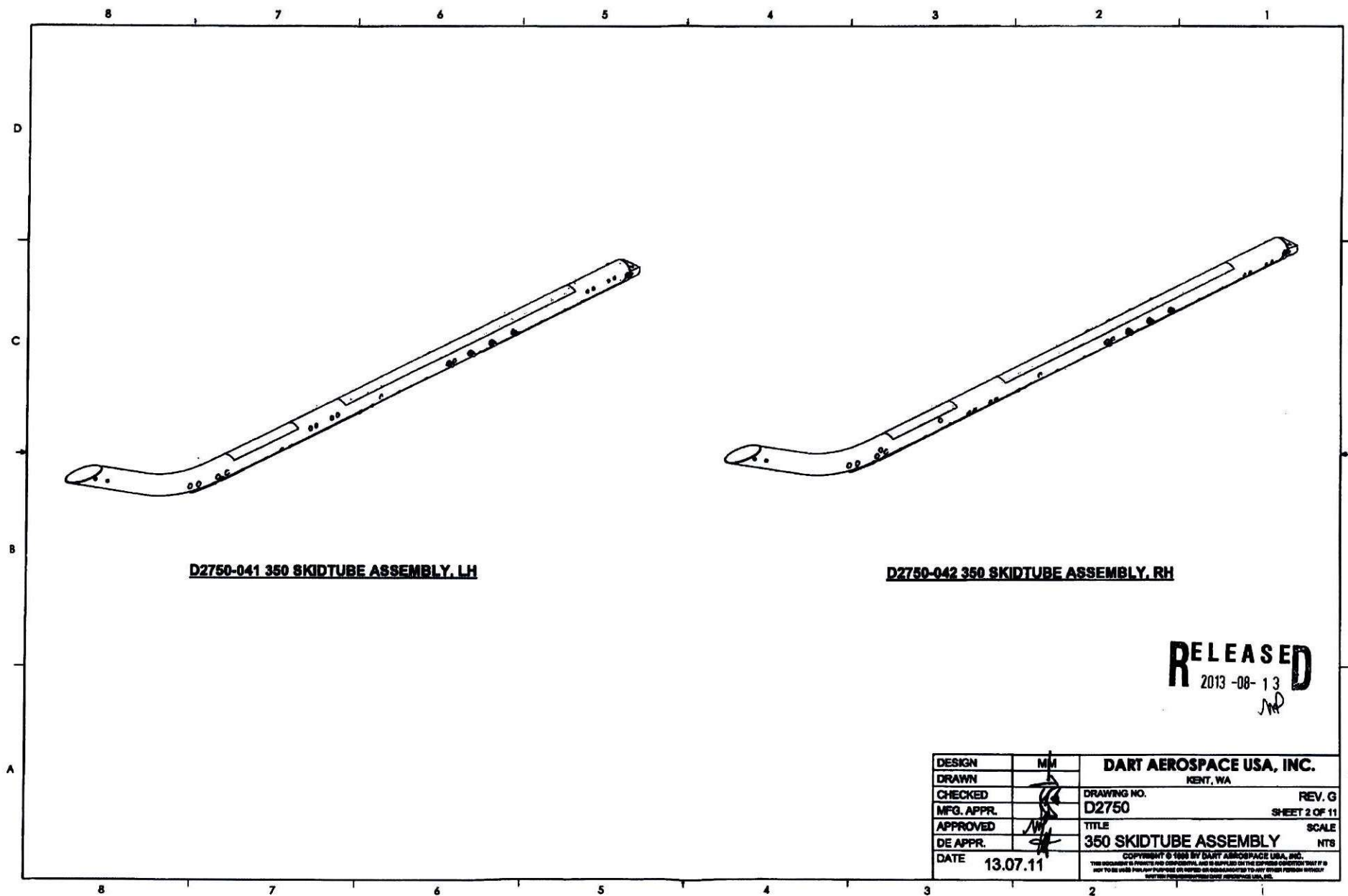
WITHOUT NOTICE
WORK ORDER

NO. 177513

MAY 14 2018

RELEASED
2013-08-13

G	CORRECTED TOLERANCE ON $\phi 0.500$ THRU HOLE: IS $+0.010/-0.000$, WAS $+0.100/-0.000$ (ZN B3-4, B2-5); ADD VIEW TO CONTROL FWD BEND ORIENTATION (ZN D-1-4/-5/-6/-7); UPDATED FINISH OPTIONS: INSIDE OF TUBE NO LONGER SPRAYED WITH LPS-3. REASON: PAR13-278 AND NCR13-2757	MB	13.07.11
F	INCORPORATE DSI 9413. QTY (3) D3537-1 WAS QTY (5) (ZN C8-1); D3781-1/-3 REPLACES D3535-1/-3 (ZN C8-1); D3794-1/-3 REPLACES D3536-1/-3 (ZN B8-1); ADD D3791-1 (ZN C8-1); WEARSHOE HOLES UNDER FWDRAFT SADDLE REMOVED (B PL). WEARSHOE HARDWARE QTY UPDATED (ZN B8-1); D3488-041/-042 HARDWARE UPDATED (ZN C1-8, 9, 10, 11); ADD NOTE 12 AND 13 (ZN A6-1); REASON: REF. NCR 08-043	PH	08.07.16
E	CHANGE TO STAINLESS STEEL WEARPLATES ADD RUBBER GASKETS; CHANGE INSERTS; ADD D3631-1; REMOVE QTY (38) NAS1515H3L; REMOVE QTY (10) NAS1515H3L; REMOVE D2741; QTY (2) AN960C816; REMOVE QTY (2) MS21083C8	CB	07.05.17
D	ADD HOLES AND SPACERS FOR APICAL FLOATS; INCORPORATE DEC 9139/6157	PH	06.01.05
C	ADD D2750-3/D2750-4; INCORPORATE D2739 AND D2740	CP	06.11.18
B	CHANGE MS24694-S293 TO AN8-16A	CP	06.09.01
A	NEW ISSUE	DS	06.04.16
REV.	DESCRIPTION	BY	DATE
DESIGN	MM	DART AEROSPACE USA, INC.	
DRAWN	MM	KENT, WA	
CHECKED	MM	DRAWING NO.	REV. G
MFG. APPR.	MM	D2750	SHEET 1 OF 11
APPROVED	MM	TITLE	SCALE
DE APPR.	MM	350 SKIDTUBE ASSEMBLY	NTS
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2013-08-13
MD

DESIGN	MM	DART AEROSPACE USA, INC.	
DRAWN	<i>[Signature]</i>	KENT, WA	
CHECKED	<i>[Signature]</i>	DRAWING NO. D2750	REV. G
MFG. APPR.	<i>[Signature]</i>	SHEET 2 OF 11	
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	350 SKIDTUBE ASSEMBLY	NTS
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